European Cooperative Programme for Plant Genetic Resources
ECP/GR

Federal Ministry of Food and Agriculture

Leafy Vegetables collection

Italy

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crea
Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria



ECPGR Leafy Vegetables Working Group and the EVA Lettuce Network
6-8 October 2026, Skierniewice, Poland

Main Conservation Institutes

Approximately 5.000-7.000 accessions

CNR – IBBR (Institute of Biosciences and BioResources, Bari)

This is Italy's primary agricultural germplasm bank and one of the most important in the Mediterranean basin (founded in 1969).

- **Leafy vegetables**: Maintains thousands of vegetable samples indexed in the **Mediterranean Germplasm Database (MGD)**. Safety duplicates for many accessions are also deposited at the Svalbard Global Seed Vault.

CREA – Research Centre for Vegetable and Ornamental Crops (CREA-OF)

manages active and *ex-situ* germplasm collections distributed across several specialized centers:

- **Pontecagnano Faiano (Salerno)**: Focus on wild and cultivated rocket, *Lactuca*, baby-leaf crops, and various vegetables – Regional genebank Campania Region
- **Monsampolo del Tronto (Ascoli Piceno):** Collections of local ecotypes of leafy brassicas, chicories, escaroles, and lettuces.- Regional genebank Marche Region

Regional Germplasm Banks and University Network

- **Apulia (UniBA + CNR-IBBR / BiodiverSO Project):** Preservation of local chicory ecotypes (e.g., Galatina, Brindisi), cultivated and wild rocket, and wild edible species (*Cichorium*, *Crepis*, *Sonchus*).
- **Tuscany (Univ. of Pisa & Florence / Regional Bank):** Protection of Tuscan Kale (*Cavolo Nero*), "Radicchia di Lucca", and ancient local selections of chard and lettuce.
- **Veneto (Veneto Agricoltura + Univ. of Padua):** Reference hub for radicchio germplasm (*Cichorium intybus*: Treviso, Castelfranco, Chioggia, Verona).
- **Sicily – Palermo (Univ. of Palermo – SAF and Catania Di3A):** Focus on local and crop wild relative brassicas (*Brassica oleracea* and *Brassica rupestris*).

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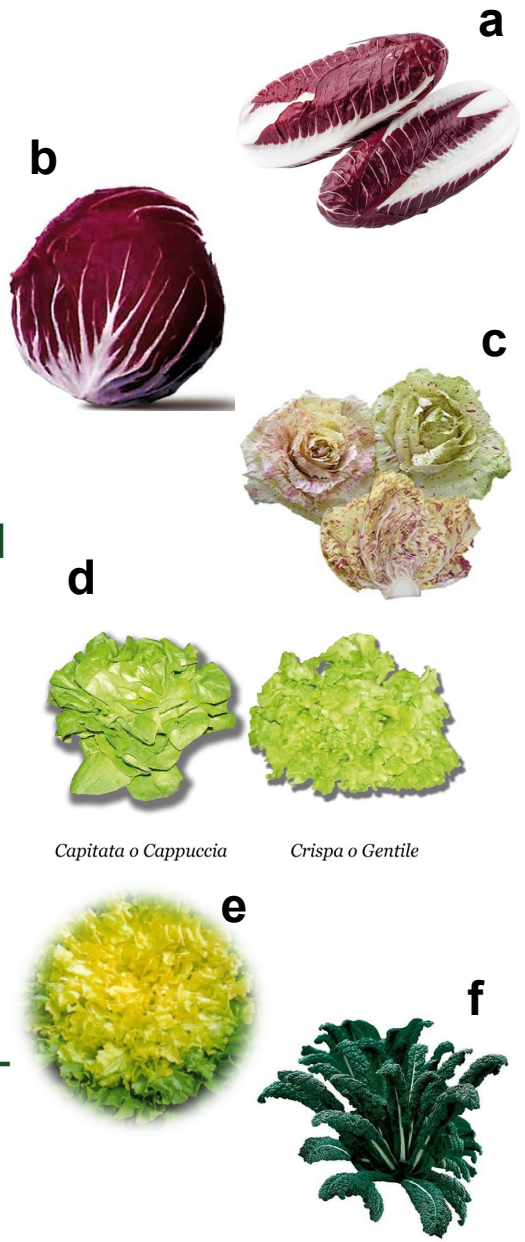
Valorization initiatives

Geographical Indication Marks and Protected Status (PDO/PGI & PAT)
To protect traditional landraces from market extinction, public bodies work with grower consortiums to secure European and national quality labels:

- **PGI** (protected geographical indication) / **PDO** (protected designation of origin) **Certifications**: Prominent examples include the Venetian radicchio group *Radicchio Rosso di Treviso IGP (a)*, *Radicchio di Chioggia IGP (b)*, *Radicchio Variegato di Castelfranco IGP (c)* and *Insalata di Lusia IGP (d)*.

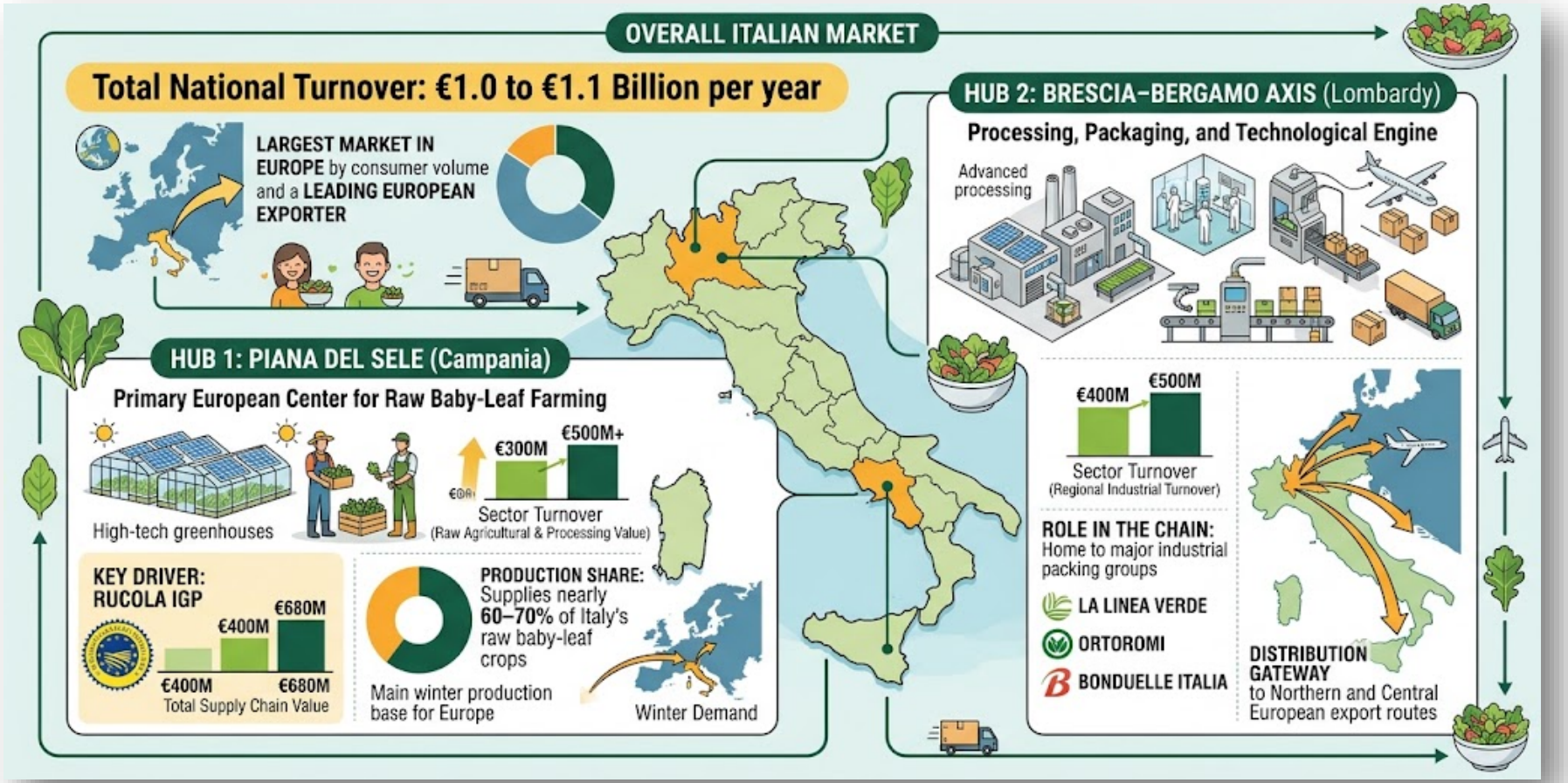
- **National Register of Conservation Varieties (Minister of Agriculture)**: Ecotypes at risk of genetic erosion are formally registered to allow official seed trade by local growers e.g., *Cicoria di Galatina*, *Scarola dei Colli di Bergamo (e)*, *Cavolo Nero di Toscana (f)*.

- **PAT (Traditional Agro-Food Products)**: Hundreds of regional leafy greens are cataloged under regional traditional food lists, encouraging local gastronomy and direct-to-consumer sales (short supply chain / *Km 0*).



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Agri-food sector: fresh-cut leafy vegetables







Rocket, Lettuce, Spinach, Endive, Basil, Baby-Leaf Greens, Endive, Cichory etc.

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Research activities – CREA OF

- ❑ *Lactuca serriola* SPET genomic analysis
- Genome reference of *Eruca sativa* (short+long read sequencing)
- Genome wide association analysis in *E. sativa*
- Development of mapping populations in *E. sativa* and *D. tenuifolia*
- *Ocimum basilicum* genomic diversity and salt stress trials
- Plasticity of metabolome in *E. sativa* collection
- Application of biostimulants in rocket salad



frontiers

Development and application of Single Primer Enrichment Technology (SPET) SNP assay for population genomics analysis and candidate gene discovery in lettuce

Pasquale Tripodi[2*], Massimiliano Beretta[2], Damien Peltier[3], Ilias Kalfas[4], Christos Vasilikiotis[5], Anthony Laidet[6], Gael Briand[6], Charlotte Aichholz[7], Tizian Zollinger[8], Rob van Treuren[9], Davide Scaglione[10] and Sandra Goritschnig[11*]

genes — MDPI

Communication

Application of High-Resolution Melting and DNA Barcoding for Discrimination and Taxonomy Definition of Rocket Salad (*Diplotaxis* spp.) Species

Pasquale Tripodi

horticulturae — MDPI

Brief Report

Precision Phenotyping of Wild Rocket (*Diplotaxis tenuifolia*) to Determine Morpho-Physiological Responses under Increasing Drought Stress Levels Using the PlantEye Multispectral 3D System

Pasquale Tripodi [1,*], Cono Vincenzo [1,2], Accursio Venezia [1], Annalisa Cocozza [1,2] and Catello Pane [1]

Journal of Soil Science and Plant Nutrition
https://doi.org/10.1007/s42729-024-01950-3

ORIGINAL PAPER

Salinity Tolerance of *Diplotaxis tenuifolia* Varieties Growing in Spring–Summer Season Under Mediterranean Greenhouse and Optimal Growing Conditions

Sonia Cacini[1] · Paola Antonia Deligios[2] · Daniele Massa[1] · Pasquale Tripodi[3] · Federica Alchera[4] · Luigi Ledda[2] · Marco Ginepro[4] · Sara Melito[5]

agriculture — MDPI

Article

Sensory and Nutritional Quality of First and Second Cuts of Wild Rocket Leaves (*Diplotaxis tenuifolia*) at the Beginning and the End of Shelf-Life

Antonio Raffo [1,*], Irene Baiamonte [1], Pasquale Buonocore [1], Francesca Masciola [1], Valentina Melini [1], Elisabetta Moneta [1], Nicoletta Nardo [1], Marina Peparaio [1], Stefania Ruggeri [1], Eleonora Saggia Civitelli [1] and Pasquale Tripodi [2]

Euphytica (2020)216:53
https://doi.org/10.1007/s10681-020-02586-x

Large scale phenotyping and molecular analysis in a germplasm collection of rocket salad (*Eruca vesicaria*) reveal a differentiation of the gene pool by geographical origin

Carla Guijarro-Real · Alejandra Navarro · Salvatore Esposito · Giovanna Festa · Rosaria Macellaro · Carlo Di Cesare · Ana Fita · Adrián Rodríguez-Burruezo · Teodoro Cardi · Jaime Prohens · Pasquale Tripodi

JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY — Article
pubs.acs.org/JAFC

Leaf Metabolic, Genetic, and Morphophysiological Profiles of Cultivated and Wild Rocket Salad (*Eruca* and *Diplotaxis* Spp.)

Francesca Taranto, Gianluca Francese, Francesco Di Dato, Antonietta D'Alessandro, Barbara Greco, Vincenzo Onofaro Sanajà, Alfonso Pentangelo, Giuseppe Mennella, and Pasquale Tripodi*

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Eur J Plant Pathol
https://doi.org/10.1007/s10658-021-02278-9

Host range and molecular typing of *Xanthomonas* spp. strains isolated from wild rocket (*Diplotaxis tenuifolia*) in Italy

Loredana Sigillo · Salvatore Esposito · Pasquale Tripodi · Giovanna Serratore · Catello Pane

European Food Research and Technology
https://doi.org/10.1007/s00217-025-04780-4

ORIGINAL PAPER

Genomic diversity and nutritional composition of ready to eat rocket salad (*Eruca sativa*) germplasm panel representing the worldwide diversity

Pasquale Tripodi[1] · Rosaria Macellaro[1] · Irene Baiamonte[2] · Nicoletta Nardo[2] · Antonio Raffo[2]

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THANK YOU